

## Federal Communications Commission

## § 1.981

(c) Calculate the number of kilometers per degree latitude difference for the mean geodetic latitude calculated in paragraph (b) of this section as follows:

$$\text{KPD}_{\text{lat}} = 111.13209 - 0.56605 \cos 2\text{ML} + 0.00120 \cos 4\text{ML}$$

(d) Calculate the number of kilometers per degree of longitude difference for the mean geodetic latitude calculated in paragraph (b) of this section as follows:

$$\text{KPD}_{\text{lon}} = 111.41513 \cos 5\text{ML} - 0.09455 \cos 3\text{ML} + 0.00012 \cos 5\text{ML}$$

(e) Calculate the North-South distance in kilometers as follows:

$$\text{NS} = \text{KPD}_{\text{lat}} \times (\text{LAT}_{1\text{dd}} - \text{LAT}_{2\text{dd}})$$

(f) Calculate the East-West distance in kilometers as follows:

$$\text{EW} = \text{KPD}_{\text{lon}} \times (\text{LON}_{1\text{dd}} - \text{LON}_{2\text{dd}})$$

(g) Calculate the distance between the locations by taking the square root of the sum of the squares of the East-West and North-South distances:

$$\text{DIST} = \sqrt{\text{NS}^2 + \text{EW}^2}$$

(h) Terms used in this section are defined as follows:

(1)  $\text{LAT}_{1\text{dd}}$  and  $\text{LON}_{1\text{dd}}$  are the coordinates of the first location in degree-decimal format.

(2)  $\text{LAT}_{2\text{dd}}$  and  $\text{LON}_{2\text{dd}}$  are the coordinates of the second location in degree-decimal format.

(3) ML is the mean geodetic latitude in degree-decimal format.

(4)  $\text{KPD}_{\text{lat}}$  is the number of kilometers per degree of latitude at a given mean geodetic latitude.

(5)  $\text{KPD}_{\text{lon}}$  is the number of kilometers per degree of longitude at a given mean geodetic latitude.

(6) NS is the North-South distance in kilometers.

(7) EW is the East-West distance in kilometers.

(8) DIST is the distance between the two locations, in kilometers.

[70 FR 19306, Apr. 13, 2005]

### § 1.959 Computation of average terrain elevation.

Except as otherwise specified in § 90.309(a)(4) of this chapter, average terrain elevation must be calculated by

computer using elevations from a 30 second point or better topographic data file. The file must be identified. If a 30 second point data file is used, the elevation data must be processed for intermediate points using interpolation techniques; otherwise, the nearest point may be used. In cases of dispute, average terrain elevation determinations can also be done manually, if the results differ significantly from the computer derived averages.

(a) Radial average terrain elevation is calculated as the average of the elevation along a straight line path from 3 to 16 kilometers (2 and 10 miles) extending radially from the antenna site. If a portion of the radial path extends over foreign territory or water, such portion must not be included in the computation of average elevation unless the radial path again passes over United States land between 16 and 134 kilometers (10 and 83 miles) away from the station. At least 50 evenly spaced data points for each radial should be used in the computation.

(b) Average terrain elevation is the average of the eight radial average terrain elevations (for the eight cardinal radials).

(c) For locations in Dade and Broward Counties, Florida, the method prescribed above may be used or average terrain elevation may be assumed to be 3 meters (10 feet).

[70 FR 19306, Apr. 13, 2005]

### REPORTS TO BE FILED WITH THE COMMISSION

#### § 1.981 Reports, annual and semi-annual.

(a) Licensees of stations authorized for developmental operation shall submit a report on the results of the developmental program. The report shall be filed with and made a part of each application for renewal of authorization. The report shall be filed at the Commission's offices in Washington, DC or alternatively may be sent to the commission electronically via the ULS.

(b) The report shall include comprehensive and detailed information on the following:

- (1) The final objective.
- (2) Results of operation to date.
- (3) Analysis of the results obtained.